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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/657,632	09/06/2000	Catherine Mary Graichen	RD-27,672	1726

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GENERAL ELECTRIC COMPANY
GLOBAL RESEARCH
PATENT DOCKET RM. BLDG. K1-4A59
SCHENECTADY, NY 12301-0008

EXAMINER	
DESTA, ELIAS	
ART UNIT	**PAPER NUMBER**
2857	

DATE MAILED: 04/07/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/657,632	Applicant(s) GRAICHEN ET AL.	
	Examiner Elias Desta	Art Unit 2857	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *06 September 2000*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-26* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-26* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☒ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date 5.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: _____.

Detailed Action

Specification

1. The specification is objected to because of the following minor informality:

- Page 1, line 8, change "to makes" to "to make"; correction is required.

Claim rejection – 35 U.S.C 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) The invention was described in a patent granted on an application for patent by another filed in the United States before the invention thereof by the applicant for patent, or on an international application by another who has fulfilled the requirements of paragraphs (1), (2), and (4) of section 371(c) of this title before the invention thereof by the applicant for patent.

The changes made to 35 U.S.C. 102(e) by the American Inventors Protection Act of 1999 (AIPA) and the Intellectual Property and High Technology Technical Amendments Act of 2002 do not apply when the reference is a U.S. patent resulting directly or indirectly from an international application filed before November 29, 2000. Therefore, the prior art date of the reference is determined under 35 U.S.C. 102(e) prior to the amendment by the AIPA (pre-AIPA 35 U.S.C. 102(e)).

3. *Claims 1-26* are rejected under 35 U.S.C. 102(e) as anticipated by *Rollins, III* (U.S. Patent 6,606,848).

In reference to claims 1, 8, 15 and 22: *Rollins, III* teaches a method for providing efficiency and cost analysis for a power generation unit (see *Rollins, III*, Figs., 16-20, 27B and 28). The method includes:

- Acquiring a plurality of current condition variables for the power generation unit (see *Rollins, III*, Fig. 36);
- Acquiring a plurality of design constraints for the power generation unit (see *Rollins, III*, Figs. 44 and 50); and
- Calculating operational efficiency of the power generation unit (see *Rollins, III*, column 36, line 34 to column 37, line 63).

With regard to claims 2, 9, 16 and 23: as noted above in claims 1, 8, 15 and 22, *Rollins, III* further teaches that the method includes acquiring a plurality of alternative target operation variables for the power generation unit (see *Rollins, III*, Figs. 18 and 19).

With regard to claims 3, 17, 10 and 24: as noted above in claims 2, 9, 16 and 23, *Rollins, III* further teaches that the method includes the step of

- Acquiring a plurality of stage operation variables for the power generation unit (see *Rollins, III*, Fig.48); and
- Acquiring a plurality of stage design constants for the power generation unit (see *Rollins, III*, Figs., 47 and 49).

With regard to claims 4, 11, 18 and 25: as noted above in claims 3, 10, 17 and 24, *Rollins, III* further teaches that the method includes:

- Calculating operational efficiency between each sage of the plurality of stage operation variables of the power generation unit (see *Rollins, III*, column 36, line 34 to column 37, line 13); and
- Calculating operational efficiency between each stage of the plurality of stage design constants of the power generation unit (see *Rollins, III*, column 38, line 64 to column 39, line 27).

With regard to claims 5, 12, 19 and 26: as noted above in claims 4, 11, 18 and 25, *Rollins, III* further teaches that the method includes acquiring a plurality of stage alternative targets operation variables for the power generation unit, such as temperature and pressure (see *Rollins, III*, column 41, lines 30-60).

With regard to claims 6, 13 and 20: as noted above in claims 5, 12 and 19, *Rollins, III* further teaches that the method includes calculating operational efficiency between each stage of the plurality of stage alternative target operation variables of the power generation unit (see *Rollins, III*, column 41, line 60 to column 42, line 36).

With regard to claims 7, 14 and 21: as noted above in claims 6, 13 and 20, *Rollins, III* further teaches that the method includes:

- Calculating a plurality of optimization variables to associate increased efficiency of the power generation unit with maintenance cost to achieve the increased efficiency (see *Rollins, III*, Fig 49); and
- Generating a report indicating a plurality of optimization variables for the power generation unit (see *Rollins, III*, Fig 37).

Conclusion

4. Citation of pertinent prior art:

- *King et al.* (IEEE Article, 'Efficiency and Emission: Cost Effective Modeling for Plant Performance Improvement') teaches method of improving power generation efficiency whilst minimizing emissions.
- *Duncan et al.* (U.S. Patent 6,670,810) teaches system and method for distributed monitoring of surroundings using telemetry of data from remote sensors.
- *Bartone et al.* (U.S Patent 6,633,823) teaches system and method for monitoring and controlling energy usage.
- *Sneeringer* (U.S. PAP 2004/0024717) teaches computer assisted and implemented process and architecture for web-based monitoring of energy related usage and client accessibility.

- *Nixon et al.* (U.S. PAP 2002/0077711) teaches fusion of process performance monitoring with process equipment monitoring and control.
- *Meystel et al.* (U.S. Patent 6,102,958) teaches multi-resolution decision support system for power plants.
- *Zaslavsky et al.* (U.S. 2002/0148222) teaches renewable resource hydro/aero-power generation plant and method of generating hydro/aero-power.

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Elias Desta whose telephone number is (571)-272-2214. The examiner can normally be reached on M-Thu (8:30-7:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Marc S. Hoff can be reached on (571)-272-2216. The fax phone numbers for the organization where this application or proceeding is assigned are (703)-308-5841 for regular communications and After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703)-308-1782.

Elias Desta
Examiner
Art Unit 2857

MARC S. HOFF
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 2800